# An Overview of Lane Departure Crashes

# North Carolina Executive Committee for Highway Safety

Lane Departure Working Group Initial Meeting

**April 12, 2004** 

#### **Definition**

#### **Lane Departure Crashes include:**

- Ran Off Road Left
- Ran Off Road Right
- Ran Off Road Straight
- Overturn/Rollover
- Fixed Object
- Head On
- Sideswipe, Opposite Direction

#### **Available Resources**

#### **AASHTO Strategic Highway Safety Plan:**

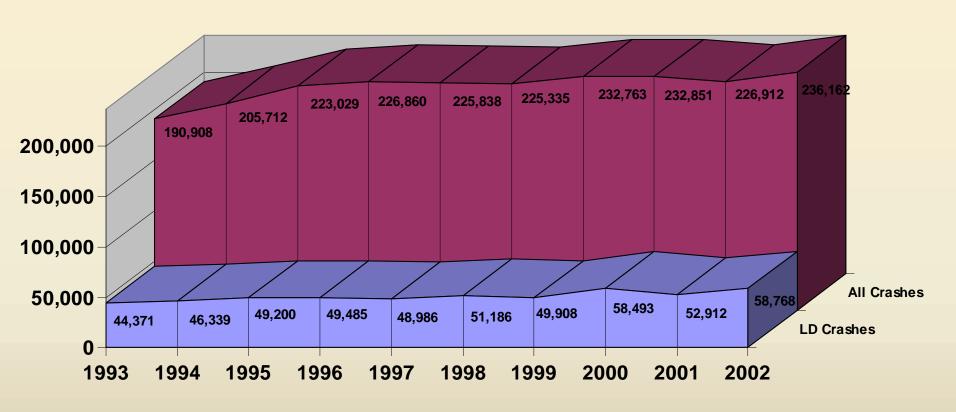
• Available online: http://safety.transportation.org/intro.aspx

#### NCHRP Reports: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan

- Volume 3: A Guide for Addressing Collisions with Trees in Hazardous Locations
- Volume 4: A Guide for Addressing Head-On Collisions
- Volume 6: A Guide for Addressing Run-Off-Road Collisions

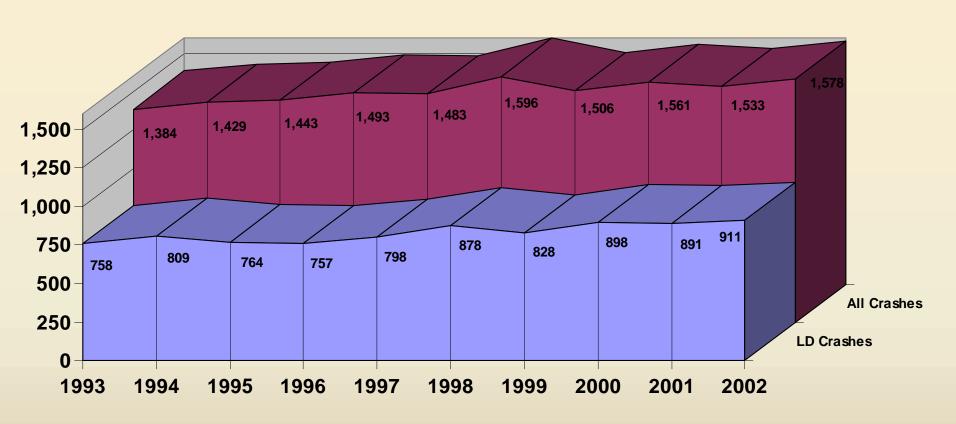
(Provided to you in Adobe .pdf on the CD-Roms)

### **Total Crashes by Category**



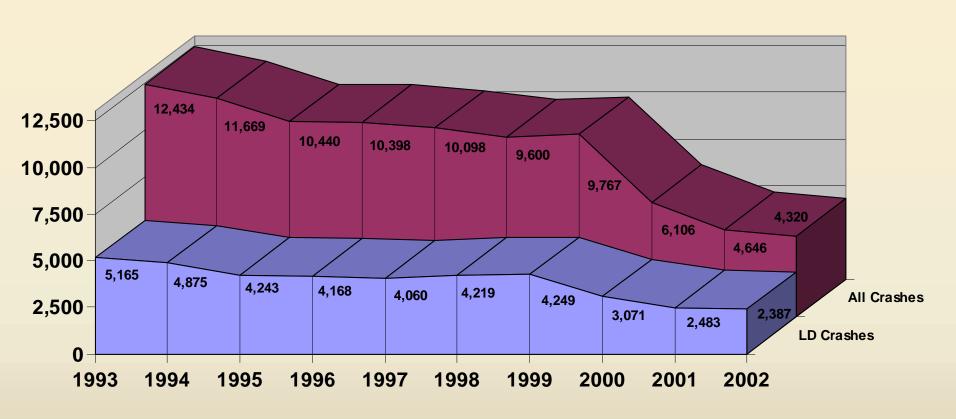
#### On Average, Lane Departure Crashes are 23% of All Crashes

### **Fatalities by Category**



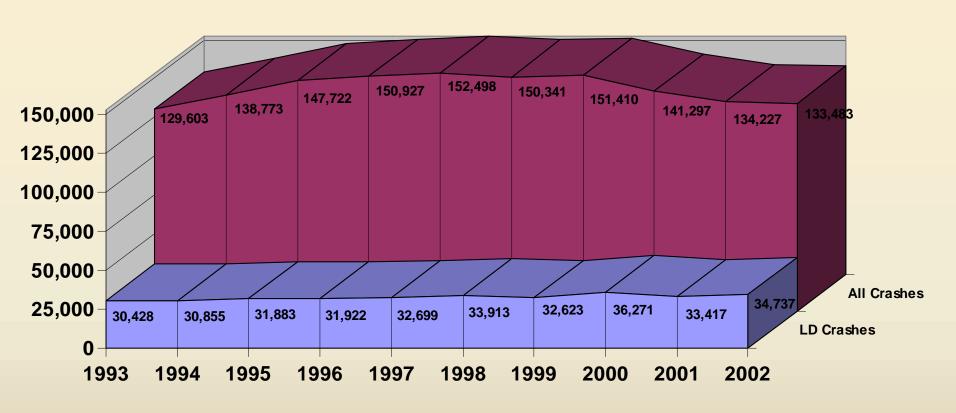
#### On Average, Lane Departure Fatalities are 55% of All Fatalities

### **Class A Injuries by Category**

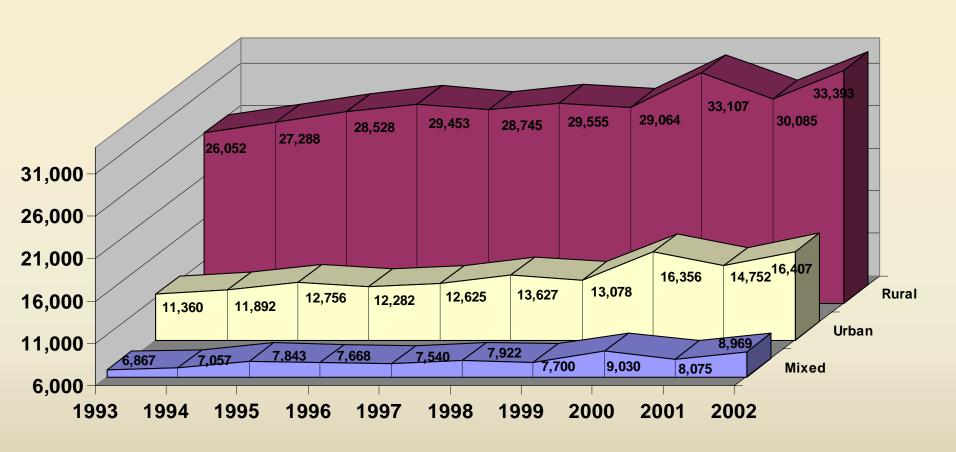


#### On Average, Lane Departure A Injuries are 45% of All A Injuries

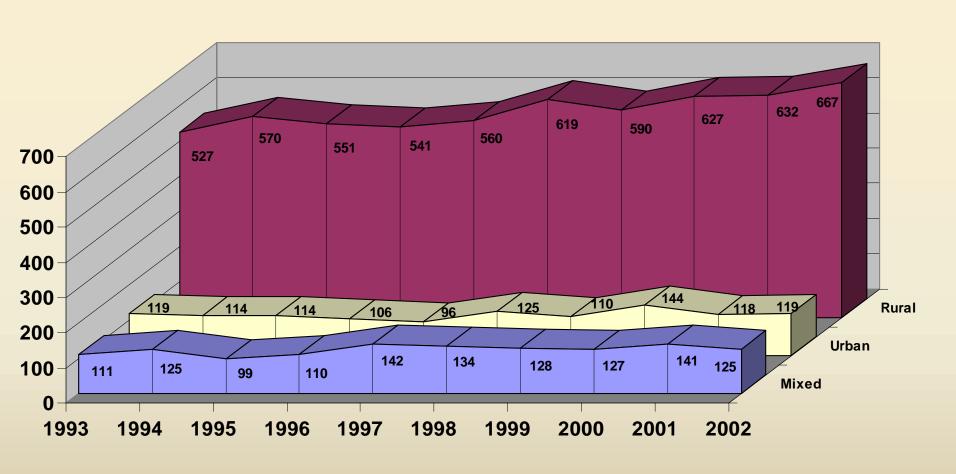
### **All Injuries by Category**



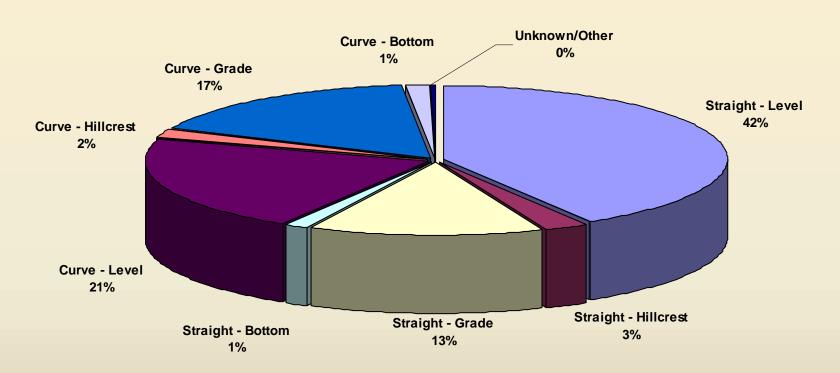
# Lane Departure Crashes by Locality (All Crashes)



# Lane Departure Crashes by Locality (Fatal Crashes)

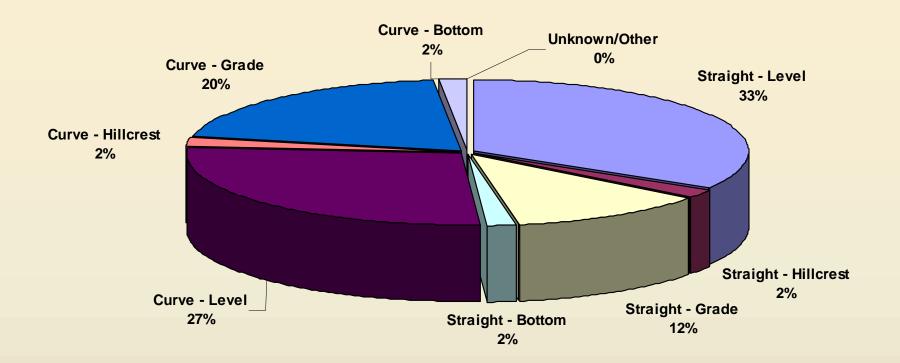


# Lane Departure Crashes (All Crashes)



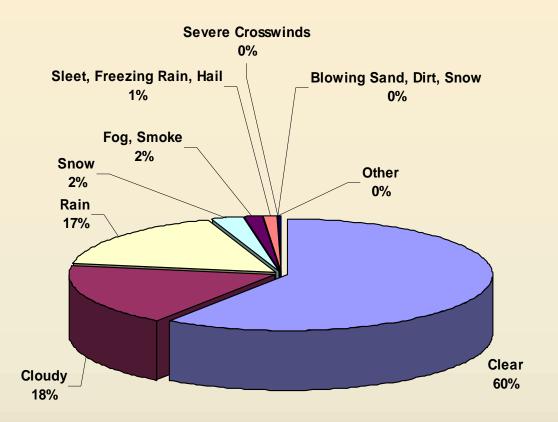
#### **Road Characteristics**

# Lane Departure Crashes (Fatal Crashes)



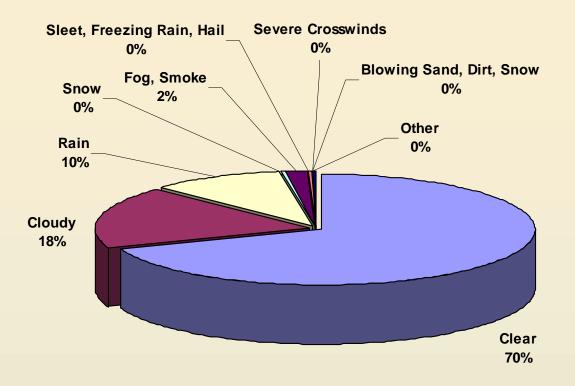
#### **Road Characteristics**

# Lane Departure Crashes (All Crashes)



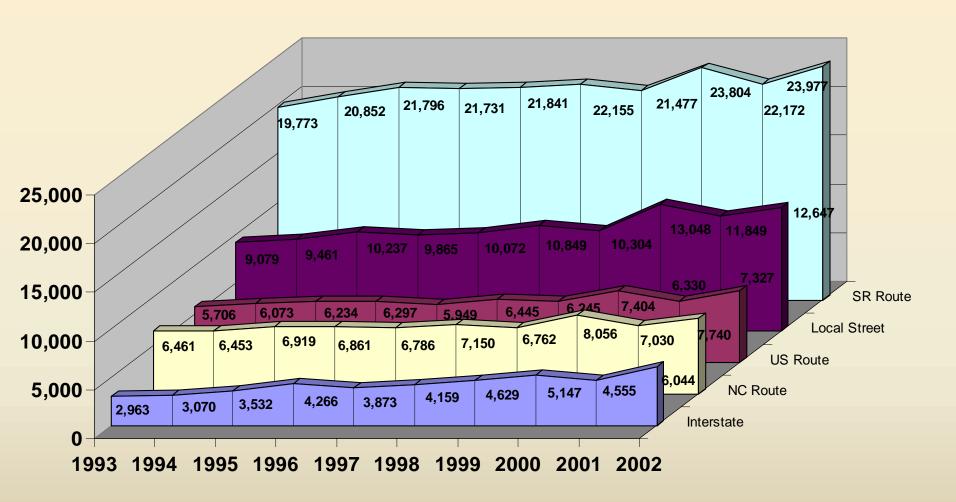
#### **Weather Conditions**

# Lane Departure Crashes (Fatal Crashes)



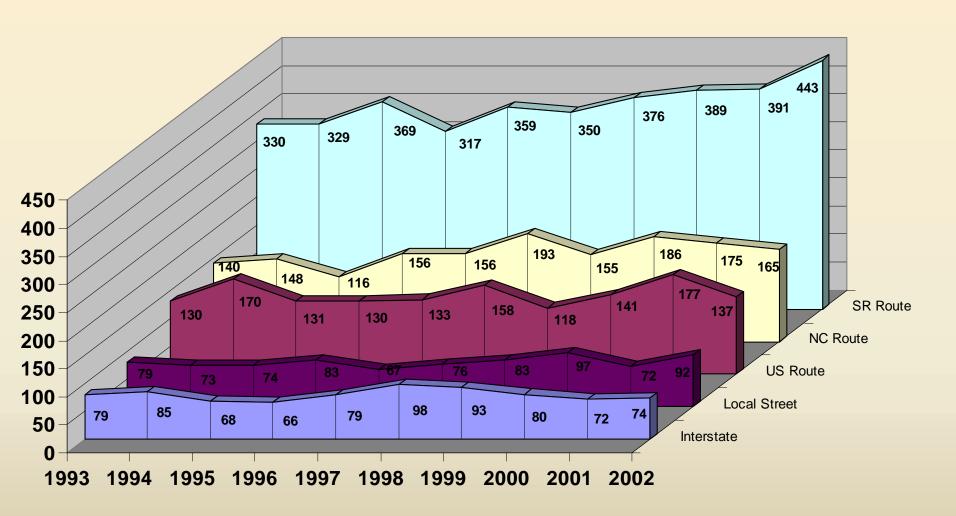
#### **Weather Conditions**

## Lane Departure Crashes by Facility (All Crashes)

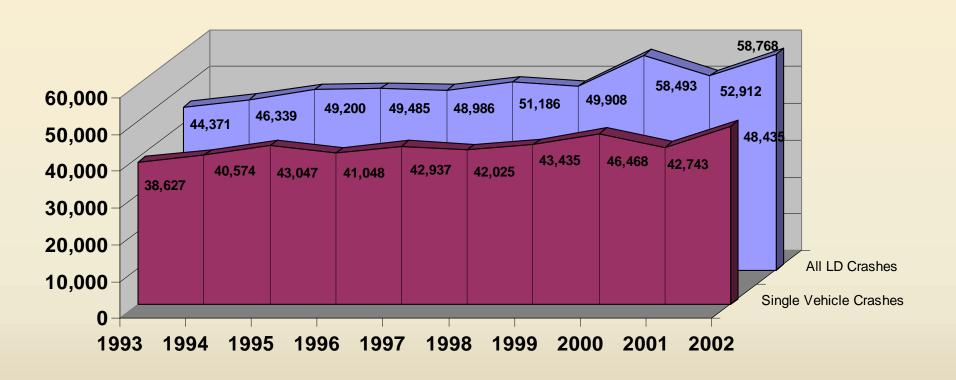


\*Note: Crashes listed as occurring on "Other", "Private" or "PVA" roads are not shown

# Lane Departure Crashes by Facility (Fatal Crashes)

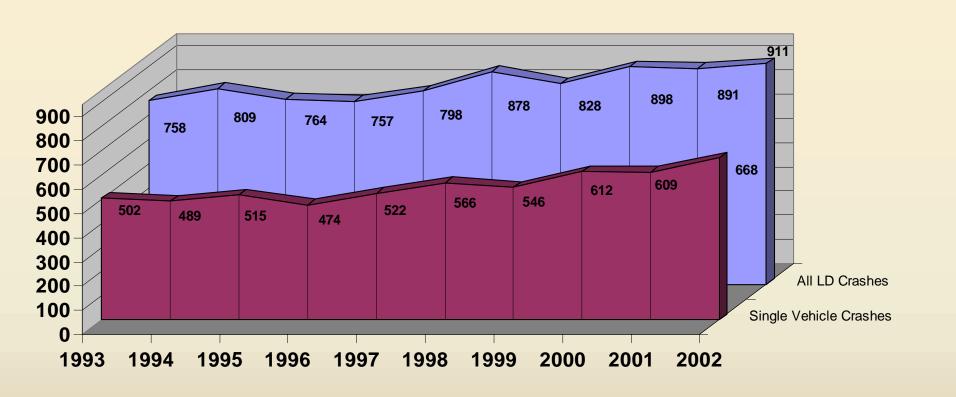


## Single Vehicle Lane Departure Crashes (All Crashes)



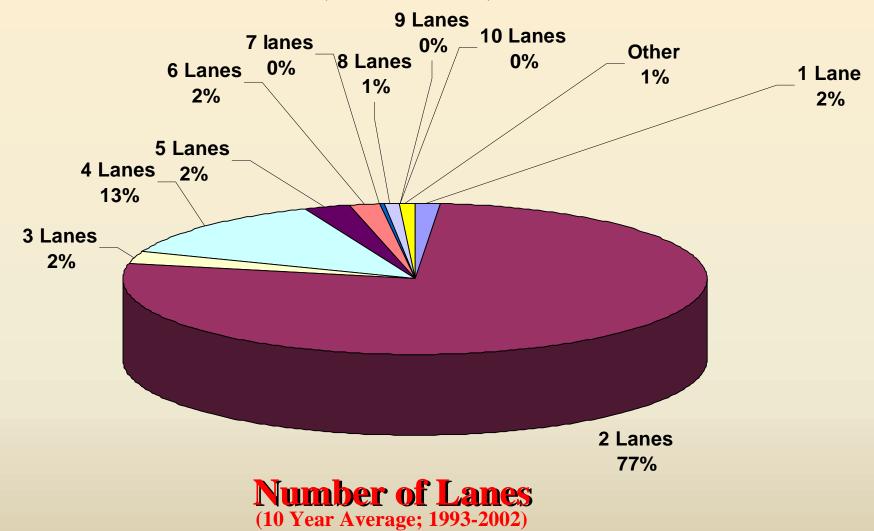
On Average, Single Vehicle Lane Departure Crashes Account for 85% of All Lane Departure Crashes

# Single Vehicle Lane Departure Crashes (Fatal Crashes)

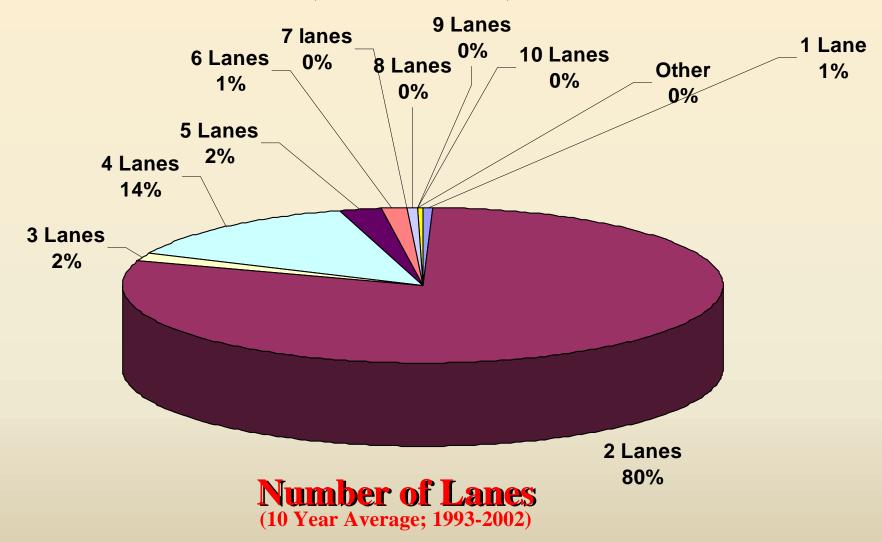


On Average, Single Vehicle Lane Departure Fatalities Account for 66% of All Lane Departure Fatalities

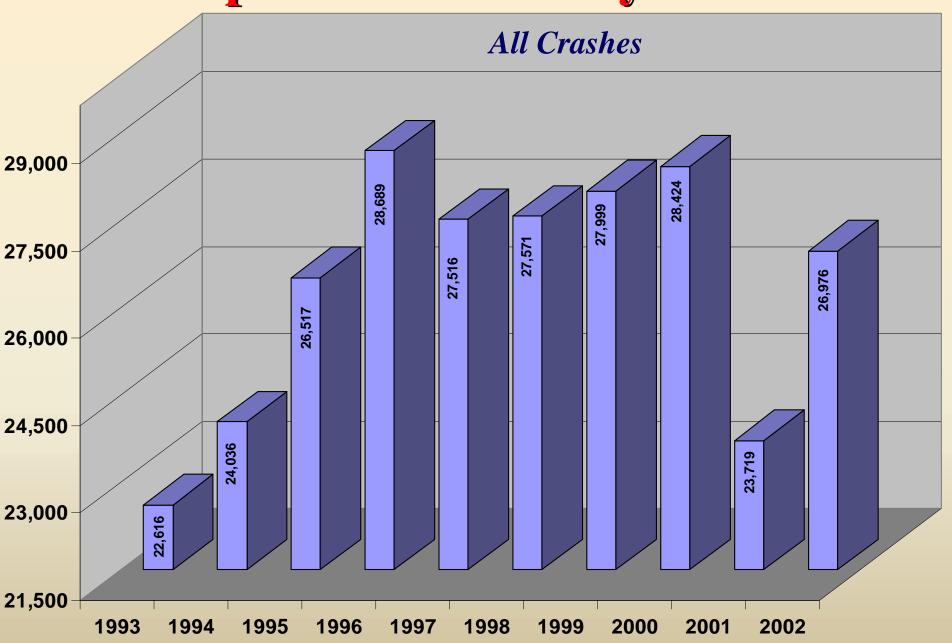
# Lane Departure Crashes (All Crashes)



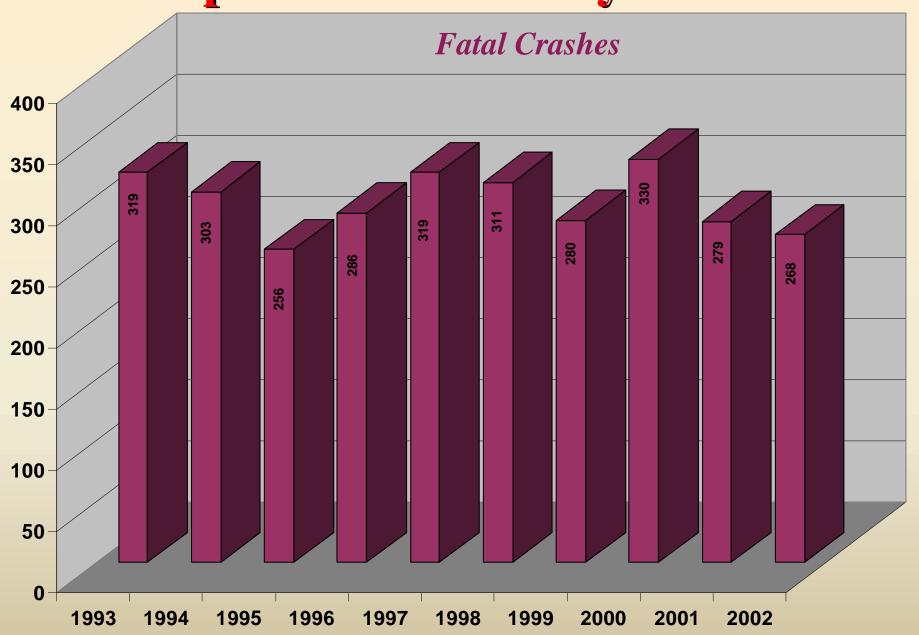
# Lane Departure Crashes (Fatal Crashes)



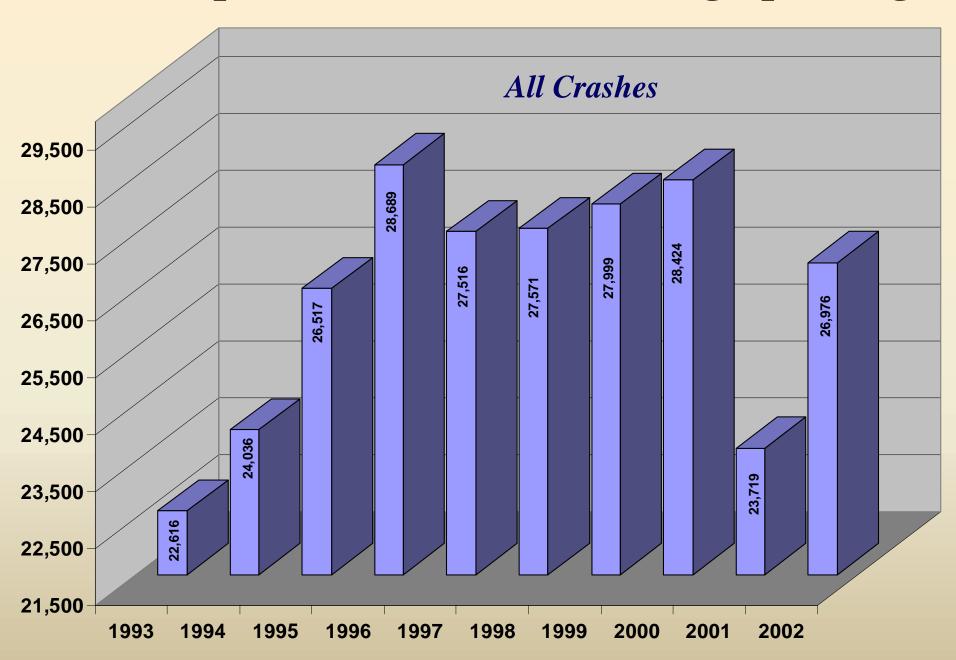
Lane Departure Crashes by Alcohol Use



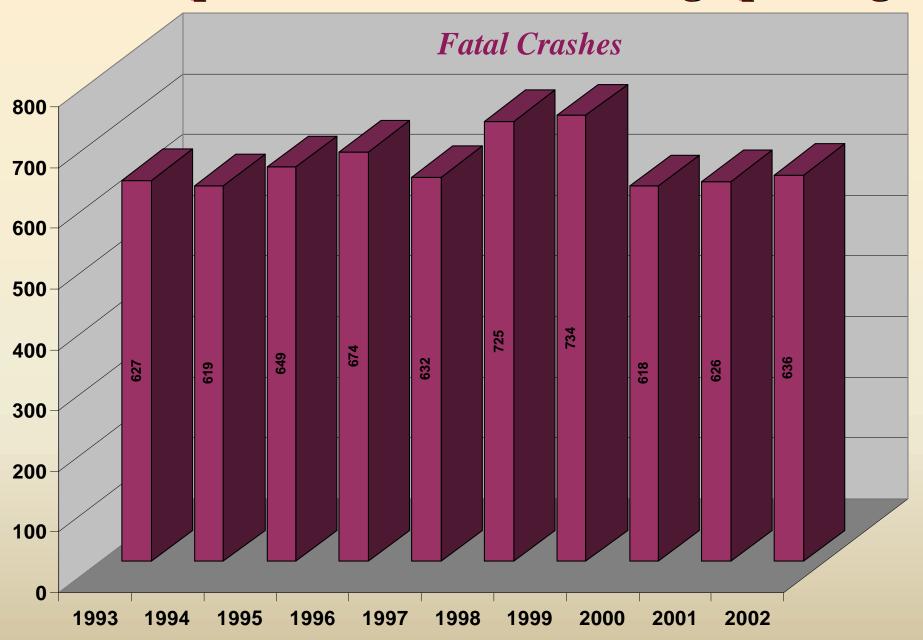
Lane Departure Crashes by Alcohol Use

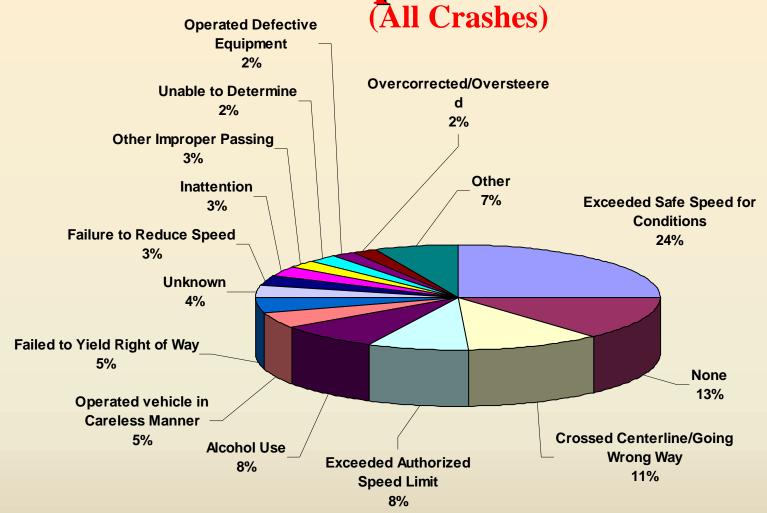


### **Lane Departure Crashes Involving Speeding**



#### **Lane Departure Crashes Involving Speeding**

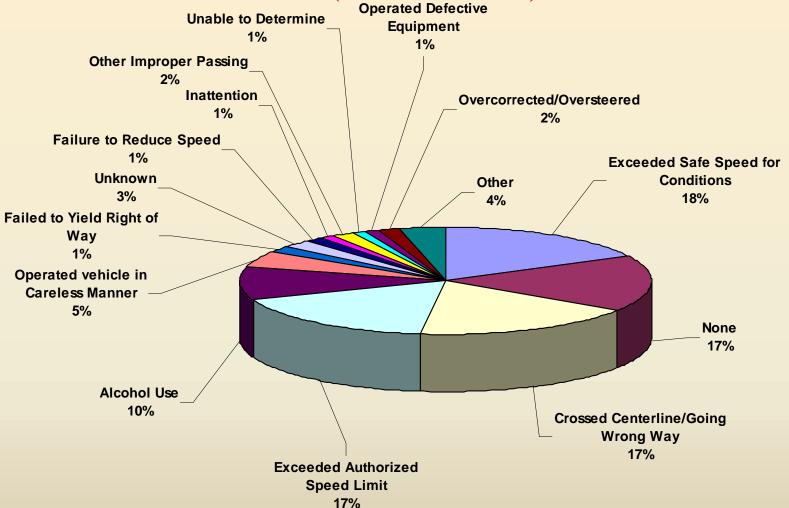




### Contributing Circumstances (10 Year Average; 1993-2002)

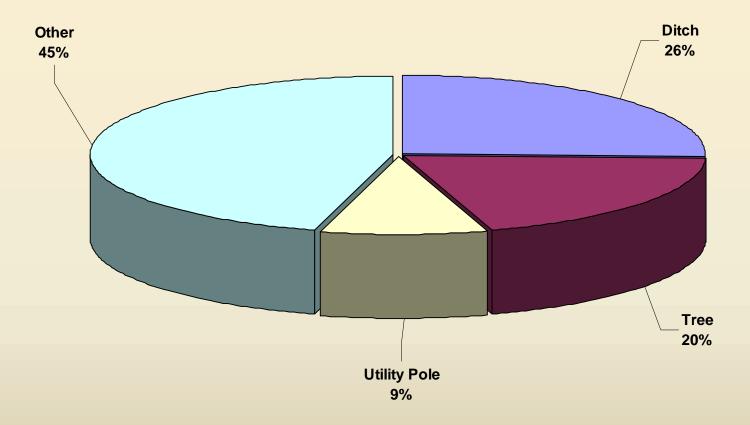
# Lane Departure Crashes (Fatal Crashes) Operated Defective





### Contributing Circumstances (10 Year Average; 1993-2002)

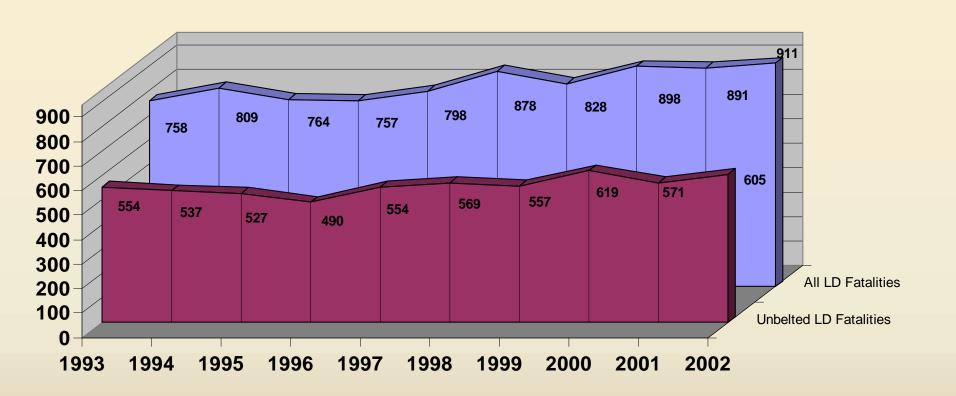
# Lane Departure Crashes (All Crashes)



**Object Struck** (10 Year Average; 1993-2002)

\*Note: "Other" Category comprised of numerous items, each in small quantities

(Fatal Crashes)



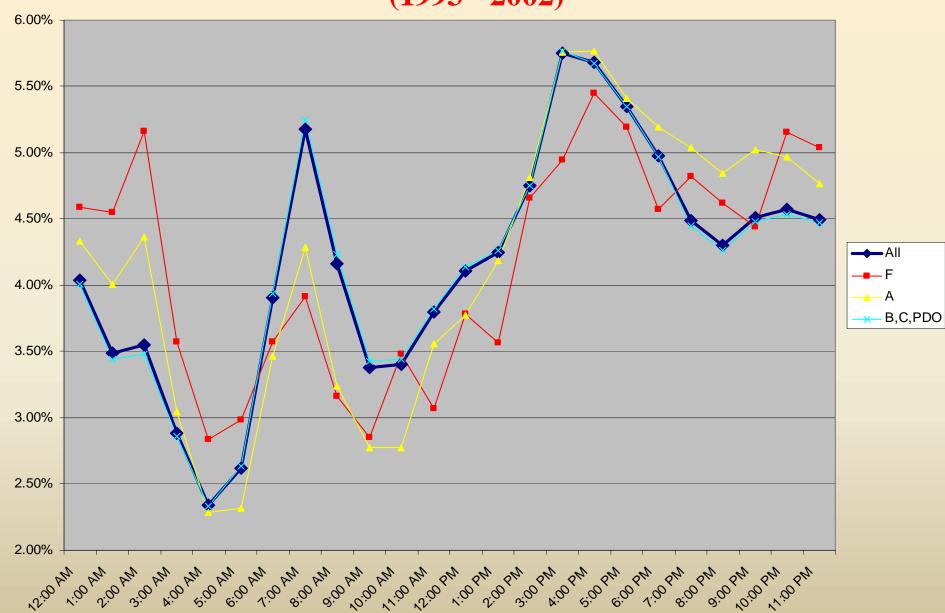
On Average, Unbelted Occupants Account for 68% of All Lane Departure Fatalities

#### Additional Data

#### Lane Departure Working Group Second Meeting

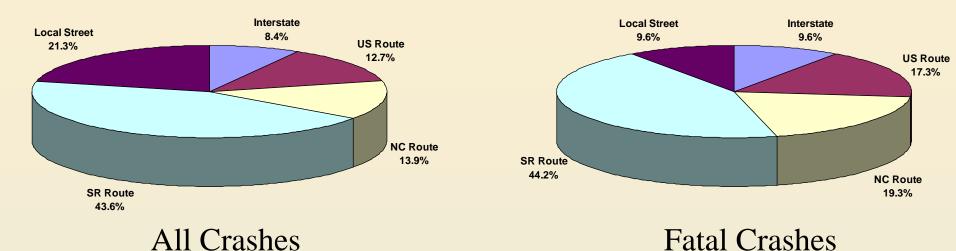
June 16, 2004

(1993 - 2002)



# Lane Departure Crashes By Facility Classification

By Facility Classification (1993-2002)



Local Street 1.1% 5.6% NC Route 8.3%

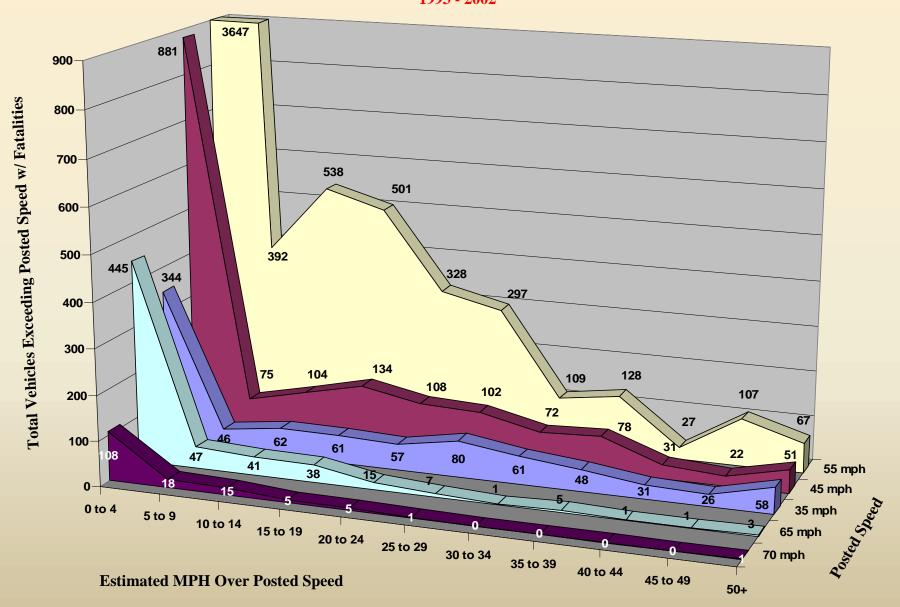
Route Mileage

SR Route 65.3%

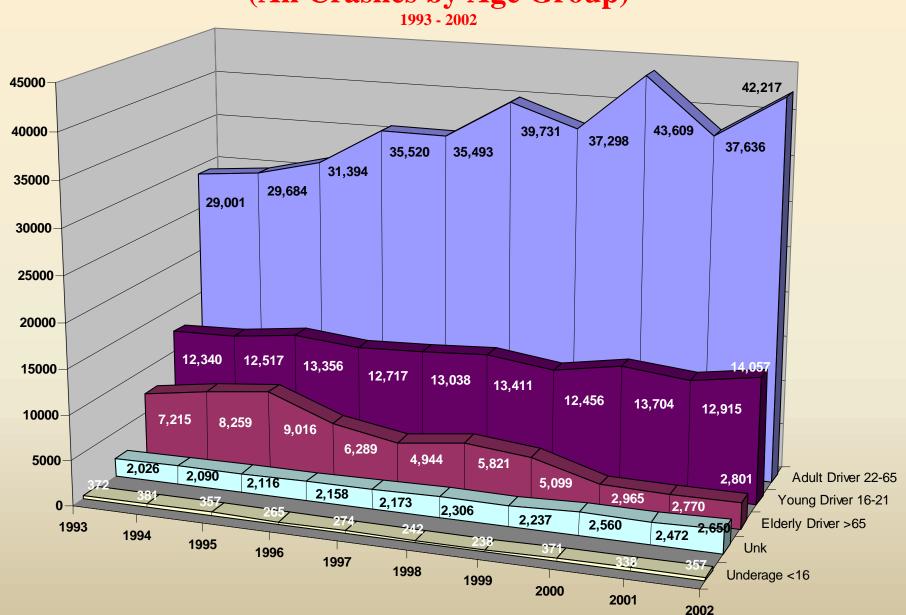
### **Estimated Vs. Posted Speeds**

(Fatal Crashes)

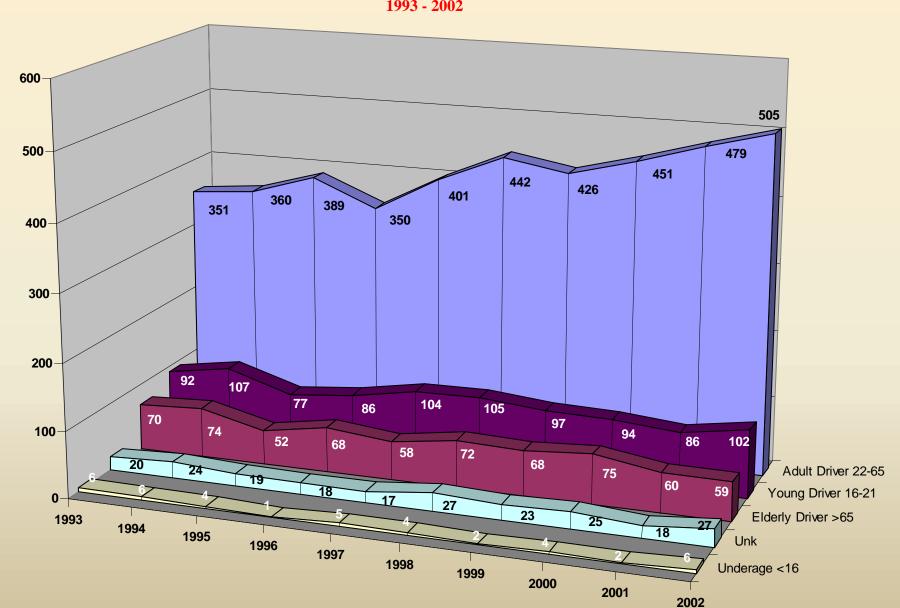
1993 - 2002



(All Crashes by Age Group)



(Fatal Crashes by Age Group)



(Paved vs. Unpaved Secondary Roads)

1993 - 2002 Data

				% of
	All Crashes	% of All	<b>Fatalities</b>	<b>Fatalities</b>
Paved	206,971	94.3%	3,573	97.8%
Unpaved	12,612	5.7%	80	2.2%
Total	219,583	100.0%	3,653	100.0%